



APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
08/734,443	10/17/96	KEYT	B A-63096/WHB
EXAMINER			
HM11/0325			
FLEHR HOHBACH TEST ALBRITTON & HERBERT SUITE 3400 FOUR EMBARCADERO STREET SAN FRANCISCO CA 94111			
ART UNIT			PAPER NUMBER
1646			7
DATE MAILED: 03/25/98			

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

- ☒ Responsive to communication(s) filed on 07 January 1998
- ☒ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

- ☒ Claim(s) 1-15 is/are pending in the application.
- Of the above, claim(s) 15 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-14 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) _____
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

- ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- ☐ Notice of Reference Cited, PTO-892
- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

--SEE OFFICE ACTION ON THE FOLLOWING PAGES--

Art Unit: 1646

DETAILED ACTION

The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1646.

Response to Amendment

1. Claim 1 has been amended as requested in the amendment of paper # 5, filed 07 January 1998. Claims 1-15 are pending in the instant application, contrary to Applicant's statement of pending claims at page 3 of the response.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Any objection or rejection of record which is not expressly repeated in this action has been overcome by Applicant's response and withdrawn.
4. Applicant's arguments filed 07 January 1998 have been fully considered but they are not deemed to be persuasive.

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Election/Restriction

5. Claim 15 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b) as being drawn to a non-elected invention. Election was made **without** traverse in Paper No. 5.

Claim Rejections - 35 USC § 102

6. Claims 1-2, 10-13 and 14 stand rejected under 35 U.S.C. 102(b) as being anticipated by Claffey et al. (Biochim. Biophys. Acta. 1246(1): 1-9, 1995) for the reasons of record in paper #5.

Applicant argues that Claffey et al. do not teach that the murine VEGF variant with substitutions of serine at cysteine residues of Claffey et al. are capable of binding the VEGF receptor or that the mutant VEGF could function as an antagonist molecule. This argument is not found to be persuasive because all of the recited claim limitations appear to be met either explicitly or implicitly by Claffey et al. The ability of the mutant VEGF of Claffey et al. to function as a VEGF receptor antagonist is an inherent property of the mutant VEGF and therefore, the limitations of the claims are met.

Applicant cites In re Bond in that "every element of the claimed invention must be identically shown in a single reference" (see page 8 of response). However, the claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. In re Best, 195 USPQ 430, 433 (CCPA 1977). Because Claffey et al. do not demonstrate that the mutant VEGF binds the VEGF receptor, does not mean that the mutant VEGF of Claffey et al. does not have the property of being a VEGF receptor

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antagonist. The limitation of the claims which requires the VEGF mutant to bind VEGF receptors without significantly inducing a VEGF response is merely a further characterization of the known VEGF mutants of Claffey et al. The VEGF mutants of Claffey et al. meet the material limitations of the claims, and therefore, would be expected by one of ordinary skill in the art of meeting the functional limitations of the claims, absent evidence to the contrary. In addition, In re Papesch, 315 F.2d 381, 137 USPQ 42, 51 (CCPA 1963) held that "From the standpoint of patent law, a compound and all its properties are inseparable." In the instant case, the VEGF mutants of Claffey et al. would inherently possess the ability to function as VEGF receptor antagonists (i.e. binding the VEGF receptor without significantly activating the receptor), absent evidence to the contrary.

7. Claims 1-3, 10-12, and 14 stand rejected under 35 U.S.C. 102(b) as being anticipated by Potgens et al. (J. Biol. Chem. 269(52): 32879-32885, 1994) for the reasons of record in paper #5.

Applicant argues that the results of Potgens et al. in Figure 8 do not clearly demonstrate that the VEGF mutants of Potgens et al. can bind to the VEGF receptor and function as a VEGF receptor antagonist (see response at pages 8-9). This argument is not found to be persuasive for the reasons given above. Potgens et al. meets all of the structural limitations of the claims and therefore, would be expected to meet the functional limitations of the claims. All of the recited

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claim limitations appear to be met either implicitly or explicitly by Potgens et al., and therefore, the claims are anticipated by Potgens et al.

8. Claim 13 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Potgens et al. as applied to claims 1-3, 10-12, and 14 for the reasons of record in paper #5.

9. Claims 4-6 and 9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Potgens et al. as applied to claims 1-3, 10-12, and 14 for the reasons of record in paper #5.

10. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potgens et al. as applied to claims 1-3, 10-12, and 14 in view of Pang (U.S. Pat. No. 5,418,135) for the reasons of record in paper #5.

Applicant argues that Potgens et al. do not teach "that their cysteine residue mutants are capable of binding to VEGF receptors" or "are capable of functioning as an effective VEGF antagonists" (see argument at page 9 of response). Applicant also argues that Pang et al. do not remedy the deficiencies of Potgens et al. These arguments are not found to be persuasive for the reasons given above. Potgens et al. does not explicitly demonstrate receptor binding and antagonist activity, however, these properties would be inherent to the VEGF mutants of Potgens et al. since the structural limitations of the claims are met. As stated above, a compound and all its properties are inseparable, therefore, the recited claim limitations of receptor binding and antagonist activity appear to be met either implicitly or explicitly by Potgens et al. absent evidence to the contrary.

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Conclusion

11. No claim is allowed.

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Saoud, Ph.D., whose telephone number is (703) 305-7519. The examiner can normally be reached on Monday to Friday from 8AM to 3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Walsh, can be reached on (703) 308-2957. The fax phone number for this Group is (703) 308-0294.

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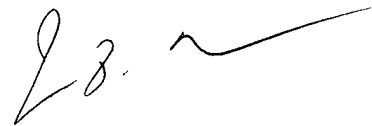
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Official papers filed by fax should be directed to (703) 308-4227. Faxed draft or informal communications with the examiner should be directed to (703) 308-0294.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Christine Saoud, Ph.D.

March 23, 1998



JOHN ULM
PRIMARY EXAMINER
GROUP 1800